Claims

What is claimed is:

5   1.   A method for adaptive service interworking, the method comprises the steps of:

a)   in response to receiving a set-up message from a sending party, obtaining connection information of an end-point network switch, wherein the set-up messages identifies a receiving party, and wherein the receiving party is operably coupled to the

10   end-point switch;

b)   interpreting the connection information to determine whether the end-point switch is capable of supporting a transparent link between the sending party and the receiving party; and

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c)   when the end-point switch is capable of supporting the transparent link, supporting the transparent link between the sending party and the receiving party.

20   2.   The method of claim 1, wherein step (a) further comprises:

appending a sending enhanced traffic descriptor to the set-up message to create a modified set-up message;

25   providing the modified set-up message to a network;

processing, by the end-point network switch, the sending enhanced traffic descriptor to determine whether the sending enhanced traffic descriptor is valid for the end-point network switch; and

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when the sending enhanced traffic descriptor is valid, appending, by the end-point network switch, a receiving enhanced traffic descriptor to a connection response to produce a modified connection response, wherein the connection response was received from the receiving party.

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3.   The method of claim 2, wherein step (b) further comprises:

when the sending enhanced traffic descriptor is invalid, providing, by the end-point network switch, the connection response; and

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when the connection response is received without the receiving enhanced traffic descriptor, interpreting the connection information to indicate that the end-point network switch is incapable of supporting the transparent link.

15   4.   The method of claim 2 further comprises translating the modified set-up message to a network protocol prior to sending to the end-point network switch.

5.   The method of claim 1, wherein the connection information further comprises at least one of: a data transport protocol and a network switch type.

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6.   The method of claim 5, wherein the network switch type further comprises the end-point network switch being capable of processing an enhanced traffic descriptor.

7.   The method of claim 1, wherein the receiving party is at least one of: a router, a

25   network coupled to the router, and an end-user.

8.   The method of claim 1 further comprises defaulting to service interworking translation when the end-point network switch is not capable of supporting the transparent link.

9.   A method for adaptive service interworking, the method comprises the steps of:

a)   receiving a set-up message that identifies a receiving party;

b)   interpreting the set-up message to determine whether a transparent link is to be established between a sending party and the receiving party; and

c)   when the transparent link is to be established, supporting the transparent link.

10.   The method of claim 9, wherein step (b) further comprises:

extracting an enhanced traffic descriptor from the set-up message, wherein the enhanced traffic descriptor includes identity of a data transport protocol of the sending party; and

determining that a data transport protocol of the receiving party is consistent with the data transport protocol of the sending party.

11.   The method of claim 9, wherein step (c) further comprises:

appending a receiving enhanced traffic descriptor to a connection message to produce a modified connection message; and

transporting the modified connection message to a beginning end network switch operably coupled to the sending party.

12.   The method of claim 11 further comprises converting the modified connection message based on a network protocol.

13.   A set-up processor comprises:

a processing module; and

5   memory operably coupled to the processing module, wherein the memory includes operating instructions that cause the processing module to (a) obtain connection information of an end-point network switch in response to receiving a set-up message from a sending party, wherein the set-up messages identifies a receiving party, and wherein the receiving party is operably coupled to the end-point switch; (b) interpret the

10   connection information to determine whether the end-point switch is capable of supporting a transparent link between the sending party and the receiving party; and (c) support the transparent link between the sending party and the receiving party when the end-point switch is capable of supporting the transparent link.

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14.   The set-up processor of claim 13, wherein the memory further comprises operating instructions that cause the processing module to:

append a sending enhanced traffic descriptor to the set-up message to create a modified

20   set-up message;

provide the modified set-up message to a network; and

receive a receiving enhanced traffic descriptor appended to a connection response when

25   the sending enhanced traffic descriptor is valid with respect to the end-point network switch.

15.   The set-up processor of claim 14, wherein the memory further comprises operating instructions that cause the processing module to:

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receive the connection response when the sending enhanced traffic descriptor is invalid with respect to the end-point network switch; and

interpret the connection information to indicate that the end-point network switch is

5   incapable of supporting the transparent link when the connection response is received without the receiving enhanced traffic descriptor.

16.   The set-up processor of claim 14, wherein the memory further comprises operating instructions that cause the processing module to: translate the modified set-up

10   message to a network protocol prior to sending to the end-point network switch.

17.   The set-up processor of claim 13, wherein the memory further comprises operating instructions that cause the processing module to: default to service interworking translation when the end-point network switch is not capable of supporting

15   the transparent link.

18.   A set-up processor comprises:

a processing module; and

— 5-   memory operably coupled to the processing module, wherein the memory includes operating instructions that cause the processing module to (a) receive a set-up message that identifies a receiving party; (b) interpret the set-up message to determine whether a transparent link is to be established between a sending party and the receiving party; and (c) support the transparent link when the transparent link is to be established.

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19.   The set-up processor of claim 18, wherein the memory further comprises operating instructions that cause the processing module to:

extract an enhanced traffic descriptor from the set-up message, wherein the enhanced
15   traffic descriptor includes identity of a data transport protocol of the sending party; and

determine that a data transport protocol of the receiving party is consistent with the data transport protocol of the sending party.

20   20.   The set-up processor of claim 18, wherein the memory further comprises operating instructions that cause the processing module to:

append a receiving enhanced traffic descriptor to a connection message to produce a modified connection message; and

25   transport the modified connection message to a beginning end network switch operably coupled to the sending party.

21.   The set-up processor of claim 18, wherein the memory further comprises operating instructions that cause the processing module to convert the modified connection message based on a network protocol.